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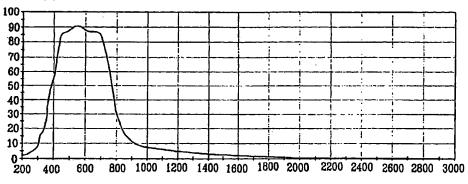
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(54) Title: OPTICAL COATINGS FOR ULTRAVIOLET AND INFRARED REFLECTION

## Transmittance(%)



Wavelength(nm)

(57) Abstract: A multilayer structure for shading ultraviolet and infrared light includes two or three layers of Ag; two or three layers of indium tin oxide (ITO); and dielectric oxide layers ranging from two layers to four layers. At least two Ag layers are formed to be in contact with the ITO layers as an upward or downward layer. Each dielectric oxide layer is made of a material which is selected from SiO<sub>2</sub>, TiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>, Y<sub>2</sub>O<sub>3</sub> and Ta<sub>2</sub>O<sub>5</sub>. The structure effectively shades ultraviolet and infrared light while transmitting visible light with a transmittance more than 85 %.



